



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,396	01/07/2002	Mutsumi Kimura	111629	3624

25944 7590 04/21/2004

OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

OSORIO, RICARDO

ART UNIT

PAPER NUMBER

2673

10

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/036,396

Applicant(s)

KIMURA, MUTSUMI

Examiner

RICARDO L OSORIO

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 5,6,14 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,7-13 and 16-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5 and 8</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 5-6 and 14-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species.

Applicant argues that the search and examination of the entire application could be made without serious burden.

Examiner disagrees because Species 1 is directed to an LCD device, classified in 345/87, while Species 2 is directed to an electro-luminescent device, classified in 345/76. Therefore, examiner concludes that search and examination of the entire application would cause a serious burden.

2. This application contains claims 5-6 and 14-15 drawn to an invention nonelected with traverse in Paper No. 9. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 10, 11, 17, 19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Huston et al US 2002/0101396).

Art Unit: 2673

Regarding claims 1, 2, 10, 11, 17, 19 and 20, Huston teaches of an electro-optical or display device comprising a plurality of signal lines; a plurality of scanning lines; pixels disposed in a matrix at intersections of the plurality of signal lines and the plurality of scanning lines (see page. 11, paragraph 151, lines 1-8); each of said pixels including sub-pixels that are each provided with a static random access memory and an electro-optical element (see page 7, paragraphs 99 and 105, and page 13, paragraph 180, lines 1-7); furthermore said sub-pixels receiving data supplied to control a luminance level being set in one of an On, higher luminance level or state, and an OFF, lower luminance level or state (It is inherent that the sub-pixel will at least be On or OFF).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-4, 8-9, 12-13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huston (see 35 U.S.C. 102 rejection above in view of Sato et al (5,357,583).

Regarding claims 3, 9, 12 and 18, further, Huston does not precisely teach of obtaining a greyscale by using a ratio of a maximum luminance level of each of said pixels to a sum of luminance of the sub-pixels in the ON state included in each of said pixels.

Sato teaches of obtaining a greyscale by using a ratio of a maximum luminance level of each of said pixels to a sum of luminance of the sub-pixels in the ON state included in each of said pixels

Art Unit: 2673

(col. 5, lines 55-59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the luminance ratio, as taught by Sato, in the device of Huston because this luminance ratio method is a well known in the art ratio gradation method (col. 5, line 52).

Regarding claims 4, 8, and 13, further, Huston does not precisely teach of obtaining a grayscale by using a ratio of an area occupied by each of said pixels to a total area occupied by the sub-pixels in the ON state, or set at the higher luminance level, in each of said sub-pixels.

Sato teaches of obtaining a grayscale by using a ratio of an area occupied by each of said pixels to a total area occupied by the sub-pixels in the ON state, or set at the higher luminance level, in each of said sub-pixels (col. 5, lines 55-59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the area ratio, as taught by Sato, in the device of Huston because this area ratio method is a well known in the art ratio gradation method (col. 5, line 52).

7. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huston (see rejection under 35 U.S.C. 102, above) in view of Alt et al (6,697,037).

Regarding claims 7 and 16, Huston teaches that said electro-optical elements can include LCDs, spatial light modulators, gratings, mirror light valves, and LED arrays.

However, Huston does not specifically include electroluminescent arrays.

Alt teaches of electro-optical elements including subpixel SRAM memories for electroluminescent arrays (col. 6, lines 37-48 and col. 9, lines 1-5).

Art Unit: 2673

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the electroluminescent elements because EL elements are just another example of pixel element arrays with the SRAM memories.

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ricardo L. Osorio whose telephone number is (703) 305-2248. The examiner can normally be reached on Mon-Thu from 7:00 AM-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached at 305-4938.

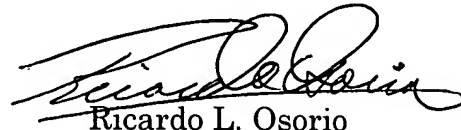
Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to: (703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



Ricardo L. Osorio
Examiner
Art Unit: 2673

RLO
April 15, 2004